



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Frank O'Bannon  
Governor

Lori F. Kaplan  
Commissioner

May 27, 2003

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

TO: Interested Parties / Applicant

RE: Thermafiber, Inc. #169-17232-00009

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

FNPERAM.wpd 8/21/02



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May 27, 2003

Mr. John Eash  
Thermafiber, Inc., Wabash Plant  
3711 West Mill Street  
Wabash, In 46992

Re: **169-17232**  
Fifth Administrative Amendment to  
**Part 70 169-6218-00009**

Dear Mr. Eash:

Thermafiber, LLC was issued a permit on January 16, 2001 for a stationary mineral wool manufacturing source. A letter requesting an Administrative Amendment was received on May 2, 2003. Thermafiber, Inc., Wabash Plant has informed IDEM, OAQ that they have replaced the drop-out boxes, multicyclones in series and side stream baghouses with new baghouses to control emissions from the two (2) cupolas, known as EU-P2 and EU-P4. The baghouses have been performance tested and complied with the emission limits specified by 40 CFR 63.1178(a)(1). Thermafiber, Inc. has determined that the existing pressure drop range across the old baghouses is technically not appropriate for the MACT compliant baghouses during normal operation. New pressure gauges were installed to meet the requirements of Condition C.14. Therefore, the pressure drop range indicative of normal operations should be amended from 3 to 9 inches of water to 2.8 to 14.0 inches of water in Condition D.1.14(a).

The changes are as follows with deleted language as ~~strikeouts~~ and new language **bolded**. Pursuant to the provisions of 326 IAC 2-7-11, the permit is hereby administratively amended as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) coke-fueled cupola #2, known as EU-P2, installed in 1955, and refurbished in 1995, natural gas supplemented, equipped with a ~~drop-out box, multiclone in series and a side stream~~ baghouse, exhausting through Stack S1, installed in **2003** ~~1995~~, capacity: 7.0 tons of minerals per hour.
- (b) One (1) coke-fueled cupola #4, known as EU-P4, installed in 1955, and refurbished in 1994, natural gas supplemented, equipped with a ~~drop-out box, multiclone in series and a side stream~~ baghouse, exhausting through Stack S3, installed in **2003** ~~1995~~, capacity: 8.0 tons of minerals per hour.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) coke-fueled cupola #2, known as EU-P2, installed in 1955, and refurbished in 1995, natural gas supplemented, equipped with a ~~drop-out box, multiclone in series and a side stream~~ baghouse, exhausting through Stack S1, installed in ~~2003~~ 1995, capacity: 7.0 tons of minerals per hour.
- (b) One (1) coke-fueled cupola #4, known as EU-P4, installed in 1955, and refurbished in 1994, natural gas supplemented, equipped with a ~~drop-out box, multiclone in series and a side stream~~ baghouse, exhausting through Stack S3, installed in ~~2003~~ 1995, capacity: 8.0 tons of minerals per hour.

#### D.1.12 Particulate Matter (PM)

- (a) In order to comply with Conditions D.1.3 and D.1.6, the baghouses ~~as well as the baghouses and the multiclone in series~~ for PM control shall be in operation and control emissions from the cupolas and the trimming section, respectively, at all times that the cupolas and/or trimming section are in operation.
- (b) In order to comply with Conditions D.1.6, the media filters for PM control shall be in operation at all times when the blowchambers #2 and/or #4 are in operation.

#### D.1.14 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the ~~multiclones and side stream~~ baghouses used in conjunction with the two (2) cupolas, at least once per shift when either or both of the cupolas are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the ~~multiclones and~~ baghouses shall be maintained within the range of ~~2.8 3.0~~ and ~~14.0 9.0~~ inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mark L. Kramer, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 ext. 12 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
MLK/MES

cc: File - Wabash County  
U.S. EPA, Region V  
Wabash County Health Department  
Air Compliance Section Inspector - Ryan Hillman  
Compliance Branch - Karen Nowak  
Administrative and Development  
Technical Support and Modeling - Michele Boner



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## PART 70 OPERATING PERMIT

### OFFICE OF AIR QUALITY

#### **Thermafiber, Inc., Wabash Plant** **3711 West Mill Street Extended** **Wabash, Indiana 46992**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 169-6218-00009	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: January 16, 2001  Expiration Date: January 15, 2006

First Administrative Amendment 169-14244-00009	Issuance Date: May 30, 2001
Second Administrative Amendment 169-14843-00009	Issuance Date: September 18, 2001
Third Administrative Amendment 169-15023-00009	Issuance Date: November 5, 2001
First Significant Permit Modification 169-15153-00009	Issuance Date: April 9, 2002
Fourth Administrative Amendment 169-17137-00009	Issuance Date: February 17, 2003

Fifth Administrative Amendment No.: 169-17232-00009	Conditions Affected: A.2, D.1.12(a) and D.1.14(a) Section Affected: D.1
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 27, 2003

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary mineral wool manufacturing source.

Responsible Official:	Plant Manager
Source Address:	3711 West Mill Street Extended, Wabash, Indiana 46992
Mailing Address:	3711 West Mill Street Extended, Wabash, Indiana 46992
General Source Phone Number:	260 - 563 - 2111
SIC Code:	3296
County Location:	Wabash
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) coke-fueled cupola #2, known as EU-P2, installed in 1955, and refurbished in 1995, natural gas supplemented, equipped with a baghouse, exhausting through Stack S1, installed in 2003, capacity: 7.0 tons of minerals per hour.
- (b) One (1) coke-fueled cupola #4, known as EU-P4, installed in 1955, and refurbished in 1994, natural gas supplemented, equipped with a baghouse, exhausting through Stack S3, installed in 2003, capacity: 8.0 tons of minerals per hour.
- (c) One (1) blowchamber #4, known as EU-P6, installed in 1955, equipped with a dry media filter, exhausting through Stack S4, installed in 1992, capacity: 8.0 tons of fiberized minerals and 0.1 tons of dedusting annealing oil per hour.
- (d) One (1) natural gas-fired curing oven #2, known as EU-P7, rated at 5.7 million British thermal units per hour, exhausting through Stack S5, installed in 1955, and replaced in 1976 through 1978, capacity: 7.0 tons of fiberized minerals per hour.
- (e) One (1) blowchamber #2, known as EU-P8, equipped a dry media filter, exhausting through Stack S6, installed in 1955, replaced in 1978 and refurbished in 1999, capacity: 7.0 tons of fiberized minerals and 1.4 tons of binder and water per hour.
- (f) One (1) #2 line trimming/sizing section, known as EU-P9, equipped with a baghouse, known as CE7, exhausting through Stack S7, installed in 1955, replaced in 1978, and reconditioned in 2003, capacity: 5.8 tons of fiberized minerals per hour.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) coke-fueled cupola #2, known as EU-P2, installed in 1955, and refurbished in 1995, natural gas supplemented, equipped with a baghouse, exhausting through Stack S1, installed in 2003, capacity: 7.0 tons of minerals per hour.
- (b) One (1) coke-fueled cupola #4, known as EU-P4, installed in 1955, and refurbished in 1994, natural gas supplemented, equipped with a baghouse, exhausting through Stack S3, installed in 2003, capacity: 8.0 tons of minerals per hour.
- (c) One (1) blowchamber #4, known as EU-P6, installed in 1955, equipped with a dry media filter, exhausting through Stack S4, installed in 1992, capacity: 8.0 tons of fiberized minerals and 0.1 tons of dedusting annealing oil per hour.
- (d) One (1) natural gas-fired curing oven #2, known as EU-P7, rated at 5.7 million British thermal units per hour, exhausting through Stack S5, installed in 1955, and replaced in 1976 through 1978, capacity: 7.0 tons of fiberized minerals per hour.
- (e) One (1) blowchamber #2, known as EU-P8, equipped a dry media filter, exhausting through Stack S6, installed in 1955, replaced in 1978 and refurbished in 1999, capacity: 7.0 tons of fiberized minerals and 1.4 tons of binder and water per hour.
- (f) One (1) #2 line trimming/sizing section, known as EU-P9, equipped with a baghouse, known as CE7, exhausting through Stack S7, installed in 1955, replaced in 1978, and reconditioned in 2003, capacity: 5.8 tons of fiberized minerals per hour.
- (g) One (1) #2 line cooling section, known as EU-P10, exhausting through Stack S8, installed in 1955, and replaced in 1978, capacity: 7.0 tons of fiberized minerals per hour.
- (h) One (1) natural gas-fired #1 boiler, known as EU-P11, rated at 12.5 million British thermal units per hour, exhausting through Stack S9, installed in January 31, 1990.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the two (2) cupolas (EU-P2 and EU-P4) and the curing oven (EU-P7) described in this section except when otherwise specified in 40 CFR Part 63, Subpart DDD.

#### D.1.2 Mineral Wool Production NESHAP [40 CFR 63, Subpart DDD]

Pursuant to 40 CFR 63.1180, the existing mineral wool cupolas, known as EU-P2 and EU-P4, and curing oven, known as EU-P7 operations are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart DDD), with a compliance date of June 2, 2002.

#### D.1.3 Particulate Matter (PM) Emission Limitation for Cupolas [40CFR Part 63.1178]

Pursuant to 40CFR Part 63.1178, at all times, except during periods of startup, shutdown, or malfunction, the particulate matter (PM) emissions from cupola #2 and cupola #4, known as EU-P2 and EU-P4, shall not exceed 0.10 pound of PM per ton of melt.

$$\%R = \frac{L_i - L_o}{L_i} \times 100$$

where: %R = Percent reduction, or collection efficiency of the control device.  
L<sub>i</sub> = Inlet loading of pollutant, kg/Mg (lb/ton).  
L<sub>o</sub> = Outlet loading of pollutant, kg/Mg (lb/ton).

**D.1.11 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-1.1-11] [40 CFR Part 63.1185(a) and 40 CFR Part 63.1188]**

The Permittee shall complete the following performance testing to demonstrate compliance with the requirements of 326 IAC 6-3-2 and Subpart DDD no later than the June 2, 2002; or by June 3, 2003 if the Permittee applies for and receives a one- (1-)year extension under section 112(i)(3)(B) of the Clean Air Act.

- (a) The Permittee shall perform testing in order to demonstrate compliance with Condition D.1.6 of the two (2) cupolas (EU-P2 and EU-P4) for PM utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) The Permittee shall conduct a performance test in order to demonstrate compliance with Condition D.1.3 of each cupola for PM as specified in 40 CFR 63.1188 utilizing methods as approved by the Commissioner and show compliance with the PM emission limits while the bag leak detection system is installed, operational, and properly adjusted.
- (c) The Permittee shall conduct a performance test in order to demonstrate compliance with Condition D.1.4 of the curing oven for formaldehyde as specified in 40 CFR Part 63.1188 utilizing methods as approved by the Commissioner while manufacturing the product that requires a binder formulation made with the resin containing the highest free-formaldehyde content specification range. The Permittee shall show compliance with the formaldehyde emission limits while the device for measuring incinerator operating temperature is installed, operational, and properly calibrated. The Permittee shall establish the average operating temperature as specified in 40CFR Part 63.1185(a).

During the performance test for the curing oven that uses the binder formulation made with the resin containing the highest free-formaldehyde content specification range, record the free-formaldehyde content specification range of the resin used, and the formulation of the binder used, including the formaldehyde content and binder specification.

**D.1.12 Particulate Matter (PM)**

- (a) In order to comply with Conditions D.1.3 and D.1.6, the baghouses for PM control shall be in operation and control emissions from the cupolas and the trimming section, respectively, at all times that the cupolas and/or trimming section are in operation.
- (b) In order to comply with Conditions D.1.6, the media filters for PM control shall be in operation at all times when the blowchambers #2 and/or #4 are in operation.



## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 63]**

### **D.1.13 Visible Emissions Notations**

- (a) Visible emission notations of the two (2) cupolas (EU-P2 and EU-P4), the two (2) blow-chambers (EU-P6 and EU-P8), curing oven #2 (EU-P7), line trimmings/sizing section (EU-P9 and the #2 line cooling section (EU-P10) stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

### **D.1.14 Parametric Monitoring**

- (a) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the two (2) cupolas, at least once per shift when either or both of the cupolas are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop baghouses shall be maintained within the range of 2.8 and 14.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the trimming/sizing section, at least once per shift when the trimming/sizing processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.5 and 2.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.